CLAIMS

1/ A method of autostereoscopically displaying an N-viewpoint image on a screen having display pixels disposed in rows and columns, each display pixel presenting p > 1 color points, corresponding to first, second, ..., and p^{th} color components, in which method the pixels of an autostereoscopic image to be displayed are displayed by distributing in space the p color points of each pixel amongst the color points of corresponding color components in p different display pixels, wherein, starting from a "high definition" autostereoscopic image presenting at least as many pixels each having p color points as the N viewpoint image presents color points, a said autostereoscopic image to be displayed is generated in which each pixel is a color point of the corresponding color component of p different pixels in the high definition autostereoscopic image.

2/ A method according to claim 1, wherein the high definition autostereoscopic image presents in the row direction as many pixels each having p color points as each image row presents color points.

3/ A method according to claim 1, wherein the high definition autostereoscopic image is generated from a starting autostereoscopic image which presents lower definition by using a definition-increasing method, such as an interpolation method, a vectorization method, or an outline search method.

4/ A method according to claim 3, wherein said lower definition is screen definition.

5/ A method according to claim 3, wherein the high definition autostereoscopic image is generated by generating for each pixel only the color point that is

used when generating said autostereoscopic image to be displayed.

6/ A method according to claim 3, wherein the definition-increasing method is such that it increases definition in the row direction.

7/ A method according to claim 3, wherein the definition-increasing method is such that it increases definition in the column direction.

8/ A method according to claim 6, wherein the high definition autostereoscopic image is obtained from a starting autostereoscopic image by using said definition-increasing method to generate an intermediate autostereoscopic image presenting either p or p-1 times as many rows and p or p-1 times as many columns of pixels than the screen, and wherein said high definition autostereoscopic image is obtained by selecting those pixels in the intermediate autostereoscopic image whose positions correspond to said distribution in space.

9/ A method according to claim 3, wherein said lower definition is screen definition, and wherein the method uses said definition-increasing method to generate an intermediate autostereoscopic image of increased definition, and then said autostereoscopic image of high definition.

10/ A method according to claim 9, wherein p=3 and wherein said increased definition corresponds to doubling the number of pixels in the row and/or column direction.

11/ A method according to claim 9, wherein the intermediate autostereoscopic image and/or the high definition autostereoscopic image are generated by

computing for each pixel only those color point(s) which are useful.

12/ A method according to claim 1, wherein the high definition autostereoscopic image is obtained from a starting autostereoscopic image having either p or p-1 times as many lines and either p or p-1 times as many columns of pixels than the screen, and wherein the high definition autostereoscopic image is obtained by selecting pixels from the starting autostereoscopic image whose positions correspond to said distribution in space.

13/ A method according to claim 1, wherein said autostereoscopic image to be displayed, when ordered so as to interleave the pixels of the N viewpoints making it up in accordance with its display topology, comprises groups of N pixels each of which corresponds to a different viewpoint, the first pixel of a given N pixel group corresponding to a first viewpoint being constituted by a first color point which is the color point of the first color component of the first of said p different pixels of a group of p pixels of the first viewpoint, a second color point which is the color point of the second color component of the second of said different pixels of said group of p pixels of the first viewpoint, ..., and a p^{th} color point which is the color point of the p^{th} color component of the p^{th} of said different pixels of said group of p pixels of the viewpoint, the second pixel of said given group of N pixels which corresponds to a second viewpoint being constituted by a first color point which is the color point of the second color component of the first of said p different pixels of a group of p pixels of the second viewpoint, ..., and a p^{th} color point which is the color point of the first color component of the p^{th} of said p different pixels of the group of p pixels of the second viewpoint, ..., and so on by circular permutation to the

N^{th} pixel of said given group which corresponds to the N^{th} viewpoint and to the group of p pixels corresponding thereto.

14/ A method according to claim 13, wherein said groups of N pixels are disposed in the row direction.

15/ A method according to claim 13, wherein said p different pixels are contiguous.

16/ A method according to claim 15, wherein said p different pixels are aligned in the row direction.

17/ A method according to claim 1, wherein the p color points of each display pixel are disposed side by side in the row or the column direction.

18/ An N viewpoint autostereoscopic image presenting pixels disposed in rows and columns, each pixel being constituted by p color points of a different color component, wherein each of the p color points of each pixel is constituted by a color point of a corresponding color component offset in space in the same manner for each of the p different pixels of a group of p pixels of a viewpoint of a high definition autostereoscopic image presenting at least as many pixels having p color points as the N viewpoint autostereoscopic image presents color points.

19/ An autostereoscopic image according to claim 18, wherein each row of the high definition autostereoscopic image presents as many pixels having p color points as each row of the N viewpoint autostereoscopic image has color points.

20/ An autostereoscopic image according to claim 19, wherein said p different pixels are in alignment in the row direction.

21/ An autostereoscopic image according to claim 19, wherein said different pixels are in alignment on a diagonal of said high definition autostereoscopic image.

22/ An autostereoscopic image according to claim 18, wherein, when ordered in such a manner as to interleave the pixels of the N viewpoints making it up in accordance with the topology of its display, it comprises groups of N pixels each of which corresponds to a different viewpoint, the first pixel of a given group of N pixels which corresponds to a first viewpoint being constituted by a first color point which is the color point of the first color component of the first of said p different pixels of a p-pixel group of the first viewpoint, a second color point which is the color point of the second color component of the second of said different pixels of the said p-pixel group of the first viewpoint, ..., and a p^{th} color point which is color point of the p^{th} color component of the p^{th} of said different pixels of said p-pixel group of the viewpoint, the second pixel of said given group of N pixels which corresponds to a second viewpoint being constituted by a first color point which is the color point of the second color component of the first of said p different pixels of a p-pixel group of the second viewpoint, ..., and a p^{th} color point which is the color point of the first color component of the p^{th} of said p different pixels of said p pixel group of the second viewpoint, and so on by circular permutation to the N^{th} pixel which corresponds to the N^{th} viewpoint and to the p-pixel group corresponding thereto.

23/ An autostereoscopic image according to claim 18, wherein the first, second, and third color components are respectively red, green, and blue.

24/ An image displayed or printed on a medium, the image being displayed or printed from an autostereoscopic image according to claim 18 in the form of display points or pixels which are obtained by distributing the p color points of each pixel of said autostereoscopic image between the color points of corresponding color components of p different display pixels.